



DEPARTMENT OF THE NAVY

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Ser N802/
18 Oct 2002

From: Commander in Chief, U.S. Atlantic Fleet (N8)

To: Chief of Naval Operations (N81)

Subj: FLEET REQUIREMENT FOR HAND HELD ASSAY, DRY FILTER UNIT
AND POLYMERASE CHAIN REACTION (PCR) TECHNOLOGY BIOLOGICAL
AGENT DETECTION CAPABILITY.

Ref: (a) CFFC letter Nuclear, Biological and Chemical (NBC)
Defense Requirement for Navy Bases and Facilities 3400
(Ser N802/CO24) dtd 24 Jul 01

1. Need: Reference (a) articulates the need for a biological agent detection capability for a specific warfare community. However, the need for this capability throughout the Navy is fundamental to effectively positioning against the exploitation of biological warfare. Currently, there exists an urgent requirement for the following:

- a. Biological aerosol sampling/collection
- b. Field expedient presumptive identification
- c. Confirmatory identification

2. Background: Biological warfare agents are most effective when delivered in the form of small diameter particles that can be inhaled and retained in the lungs. Aerosols can be delivered on target without any indication of their presence. Aerosol sampling/collection and identification is the only means of determining the presence of an aerosol. In order to capture these particles for analysis, air samplers specifically designed for this purpose are needed. Once particles are captured they can to be evaluated for the presence and identification of biological warfare agents, thereby providing a consequence management tool for the battle commander.

3. Discussion: The capability to perform quick and simple testing is essential to operational effectiveness in a CBRN environment. The three-fold process of air sampling/collecting, presumptive and confirmatory identification using Polymerase Chain Reaction (PCR) technology is currently available for fielding to the warfighter and shore installations. This multi-tiered process provides an approved "detect to treat" capability that is effective and economical.

4. Recommendations: Recommend fielding of Hand Held Assays and Dry Filter Units to naval forces requiring this capability. Additionally, recommend expedited fielding of PCR technology aboard carriers and large deck amphibs.

5. My POC for this action is Mr. M. E. Erickson, CINCLANTFLT (N802) at (757) 836-6682.

A handwritten signature in black ink, appearing to read "J. D. Kelly", is written over the typed name.

J. D. KELLY
Director, Warfare Programs
and Readiness